Applicant : Christopher P. Hondl et al.   Attorney's Docket No.: 07844-424001 / P388
Serial No. : 09/880,085
Filed   : June 14, 2001
Page   : 14 of 17

REMARKS

Claims 1-60 are pending, with claims 1, 14, 19, 32, 45, 53, 59, and 60 being independent. Claims 1, 19, 32, 45, 53, 59, and 60 have been amended.

Independent claim 1 relates to a method for compressing an image. The method includes receiving an image that is defined by pixels, which each have a true color. The method includes identifying in a compression dictionary a set of zero or more candidate strings for a current pixel in the image. If the set of candidate strings for the current pixel is empty, then one of the candidate strings for the previous current pixel is selected and a code for the selected string is added to a compressed representation of the image.

Claims 1-60 have been rejected under 35 U.S.C. §112, first paragraph for failing to comply with the written description requirement. In particular, the Examiner states that the term "if the set of candidate strings for the current pixel is empty, selecting one of the candidate strings for a previous current pixel" in claim 1 does not satisfy the written description requirement. Applicant requests withdrawal of this rejection because Applicant has provided sufficient written description to inform a skilled artisan that applicant was in possession of the claimed invention at the time of filing and because the Examiner has failed to establish a *prima facie* case of lack of written description, as discussed below.

Applicant has provided a detailed description relating to selection of one of the candidate strings for the previous current pixel. See MPEP §2163 I. The Examiner is directed to page 5, lines 27 to page 6, line 4; page 7, lines 3-25, page 8, lines 1-6 and 15-32; page 9, lines 1-20; and Figs. 1-4. In particular, as explained at page 9, lines 1-8 of the specification

>   If the set of candidate strings does not contain a single candidate string (step 126), then the process next considers as the candidate string a candidate prefix string plus the identified index value from step 114 (step 128). If the candidate string is in the compression dictionary (step 130), then the prefix string is set to be the candidate string (step 122) and the next pixel is selected as the current pixel (step 124).
>   If the candidate string is not in the compression dictionary (step 130), this indicates that a new pattern has been identified. Thus, an entry is added to the

Applicant : Christopher P. Hondl et al.   Attorney's Docket No.: 07844-424001 / P388
Serial No. : 09/880,085
Filed   : June 14, 2001
Page   : 15 of 17

> compression dictionary (step 132). This newly-assigned entry maps a new code
> to the candidate string.

This section of the specification provides sufficient written description to inform a skilled artisan that Applicant was in possession of the quoted term.

Moreover, the Examiner has failed to establish a *prima facie* case of lack of written description. The Examiner must provide reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. See MPEP §§2163 III.A. and 2163.04, which explains that a description as filed "is presumed to be adequate" and the burden to show that the description is not adequate falls on the Examiner. Indeed, the written description requirement revolves around the question of whether the subject matter of the claim is supported by the disclosure as filed. However, the Examiner has failed to provide reasons why a person would not have recognized the inventor was in possession of the claims invention in view of the disclosure applicant has filed.

The Examiner simply states that the meaning of "if the set of candidate strings for the current pixel is empty" is unclear. However, the passages discussed above provide sufficient written description of the term "empty" and describe how the set can be empty. Moreover, an "empty" set is a well-known concept to one of ordinary skill in the art of computer programming, which includes knowledge of basic mathematics, and in particular, of elementary set theory, and Applicant need not disclose the detail of the meaning of an "empty" set. See MPEP §2163 II.A.3.(a). Nevertheless, applicant provides a copy of pages 1-7 of "Discrete Mathematics" by Kenneth A. Ross and Charles R.B. Wright, 3rd Edition, which is a commonly used basic mathematics textbook. This passage by Ross explains the concept of an empty set and demonstrates that the concept is well known to those of ordinary skill in the art.

The Examiner also requests the "criteria for selecting" one of the candidate strings from the previous current pixel. However, 35 U.S.C. § 112, first paragraph does not require applicant to recite all the details of the invention that distinguish it from the prior art. Thus, applicant is not required to recite details in claim 1 of how one of the candidate strings is selected. Nevertheless, the Examiner is directed to the passages in the description above, which describe

how one of the candidate strings is selected. The Examiner is also directed to claim 10, which describes one implementation of how a candidate string is selected. Claim 1 is not limited to the criteria for selection of the candidate string.

The Examiner further requests clarification on which previous current pixel's candidate string is selected. Applicant has amended claim 1 to clarify that "a current pixel in the image" is identified and "the current pixel is associated with exactly one previous current pixel." This amendment, claim 1 is clear, and the scope of the claim remains unchanged.

For at least these reasons, claim 1 is allowable, as are the claims depending from claim 1. Claims 14, 19, 32, 45, 53, 59, and 60, and the claims dependent on these claims, are allowable for at least the same reasons that claim 1 is allowable.

Claims 1-60 have been rejected under 35 U.S.C. §112, second paragraph for being indefinite. The Examiner asks "if each candidate string approximately match[es] the corresponding image string then how [can the] candidate string for [the] current pixel [be] empty." Applicant requests withdrawal of this rejection because the Examiner has improperly paraphrased features from claim 1 and because the limitations of claim 1, as properly recited, are not conflicting, as discussed below.

First, claim 1 does not recite that the "candidate string" might be "empty." Rather, claim 1 contemplates that the "set of candidate strings" might be "empty" and if so, then "one of the candidate strings for the previous current pixel" is selected. Second, claim 1 explains that a "set of zero or more candidate strings" is identified where each candidate string corresponds to a string of pixels in the image. Thus, the set might have zero candidate strings but if the set had any candidate strings then each of those candidate strings would correspond to a string of pixels in the image. Thus, the limitations of claim 1, as properly recited, are not conflicting. For this reason, claim 1 and the claims dependent on claim 1 are allowable. Claims 14, 19, 32, 45, and 53, and the claims depending from these claims, are allowable for at least the reasons that claim 1 is allowable.

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Respectfully submitted,

Date: October 1, 2004

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